

# Solid Waste Management Facility Siting

#### **DESCHUTES COUNTY SOLID WASTE ADVISORY COMMITTEE (SWAC) MEETING**

Tuesday, June 17, 2025, 9:00 a.m.-11:00 a.m.

Deschutes County Road Department Conference Room (61150 SE 27th St., Bend, OR 97702) or Zoom

**Zoom Meeting Information:** This meeting may be accessed via Zoom using a phone or computer.

- To join the meeting from a computer, copy and paste this link: <a href="https://bit.ly/4iMi1NB">https://bit.ly/4iMi1NB</a>
- To join by phone, call 253-215-8782 and enter webinar ID #812 0402 6361 followed by the passcode 773333.
- If joining by a browser, use the raise hand icon to indicate you would like to provide public comment, if and when allowed. If using a phone, press \*6 to indicate you would like to speak and \*9 to unmute yourself when you are called on.

#### **June Meeting Agenda**

- 1. Introductions/ Welcome
- 2. Review/Approve May Meeting Minutes
- 3. Public Comment
- 4. Property Acquisition Updates
- 5. Public Outreach Updates
- 6. Supplemental Site Screening Preliminary Results
- 7. SWAC Discussion
- 8. Next Steps
- 9. Adjourn

<u>Managing the Future of Solid Waste</u>: Solid Waste Management Facility resource information <u>Story Map</u>: Deschutes County Managing the Future of Solid Waste informational story map including Frequently Asked Questions

<u>Solid Waste Advisory Committee Meetings</u>: April 2022 to June 2023 meeting materials, including agendas and summaries

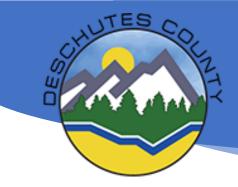
<u>Deschutes County Meeting Portal - Solid Waste Advisory Committee Meetings</u>: August 2023 and later meeting agendas and summaries



Deschutes County encourages persons with disabilities to participate in all programs and activities. This location is accessible to people with disabilities. If you need accommodation to make participation possible, please call the Solid Waste office at (541) 317-3163, or send an email to <a href="mailto:solidwaste@deschutes.org">solidwaste@deschutes.org</a>.



Condado de Deschutes alienta a las personas con discapacidad a participar en sus programas y actividades. Este lugar es accesible para personas con discapacidad. Si necesita hacer arreglos para hacer posible la participación, llame a Solid Waste la oficina a (541) 317-3163, o envíe un correo electrónico a solidwaste@deschutes.org.



## Solid Waste Management Facility Siting Study

Solid Waste Advisory Committee (SWAC) Meeting
June 17, 2025









#### **Public Comments**

3 minutes per person, tentatively, depending on the number of people wishing to comment

Written comments can also be sent to:

managethefuture@deschutescounty.gov



## **Agenda**

- 1. Introductions/Welcome
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# Introductions / Welcome



## **SWAC Members**

#### **City Representatives (Primary / Alternate):**

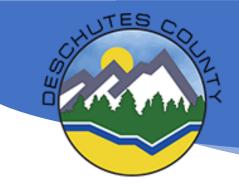
- •Bend: Cassie Lacy / Chris Ogren (new as alternate, former at-large)
- •Redmond: John Nielsen (new appointment)
- •Sisters: Jackson Dumach / Paul Bertagna (continuing)
- •La Pine: Brent Bybee (new appointment)

#### **Franchise Haulers:**

- •Cascade Disposal: Erwin Swetnam / Michael Grove (new alternate)
- •Republic Services: Erica Haitsma / Courtney Voss (new alternate)

#### **Citizen Members:**

- •Technical: Timm Schimke (new appointment, replacing Jared Black)
- •Financial: Luke Dynes (continuing)
- At-Large: Keith Kessaris & Robin Vora (continuing)
- •The Environmental Center: Neil Baunsgard (new appointment, replacing Mike Riley)



## **Project Team Members**

#### **Deschutes County**

- •Tim Brownell Solid Waste Department Director
- •Jeff Merwin Solid Waste Infrastructure & Compliance Manager
- •Sue Monette Management Analyst
- •Angie Heffner Administrative Support
- •Stephanie Marshall County Legal Counsel
- •Kristie Bollinger County Property Manager

#### Parametrix (Consultant):

- •Dwight Miller, PE Project Principal
- •Ryan Rudnick, PE Project Manager



## **Property Acquisition Updates**

#### **Horse Ridge Site**

- Met with Horse Ridge Pit, LLC owner on 4/17. Discussions continuing.
- Met with Hap Taylor & Sons, LLC pit owner (Knife River Corporation) onsite 4/22.
- Met with ODOT last week regarding 20-acre aggregate pit.

#### **Dodds Rd Site**

- Response received from property owner, Central Oregon Irrigation District (COID)
- COID indicated initial preference for land lease agreement, over lump sum purchase
- COID Staff meeting with District Board of Directors on 6/10 to discuss potential interest in consideration

#### **Roth Sites**

• Motivated seller, offering all Roth property holdings at reduced price. Ready to negotiate.

#### **Golden Basin West Site**

- Multiple attempts to contact property owners, but no response
- Removed from further consideration due to owner unresponsiveness



## **Public Outreach Updates**

#### Tribal Engagement

Outreach to Confederated Tribes of Warm Springs with site maps and KMZ files to gather input on cultural and historical considerations

#### Recreation Stakeholder Coordination

Contacted Central Oregon Trail Alliance (COTA) regarding mountain bike and hiking trails near Horse Ridge Site

#### Regional Solutions Team Briefing

Updates shared with Oregon's Regional Solutions Team; offer extended to present at upcoming meeting

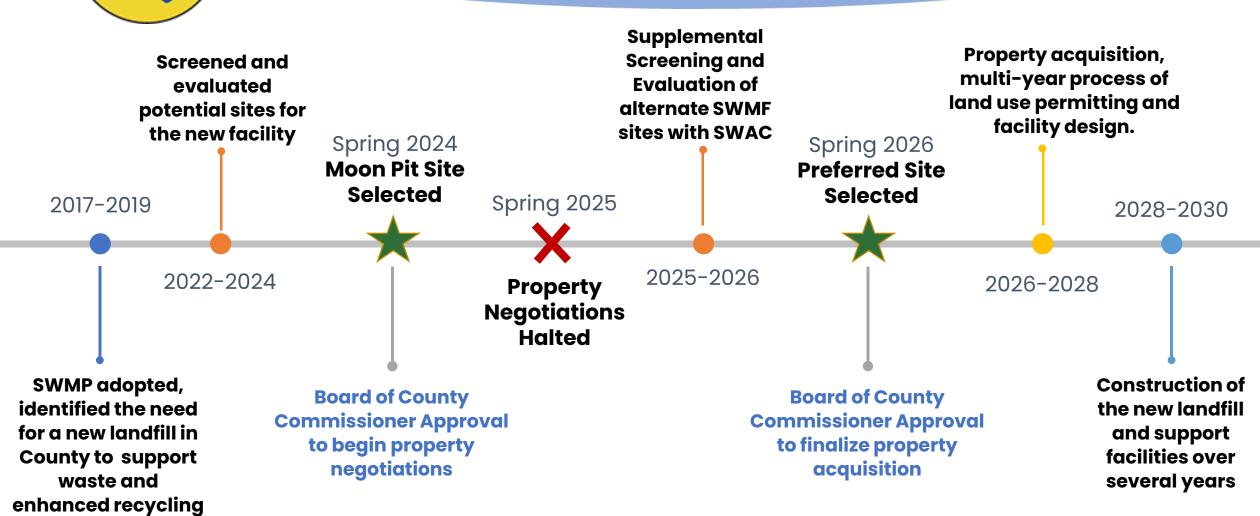
#### Environmental Advocacy Notification

Letter sent to Central Oregon Conservation Network (COCN) with project overview and GIS data to inform and invite feedback



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## Roadmap to Opening in 2031

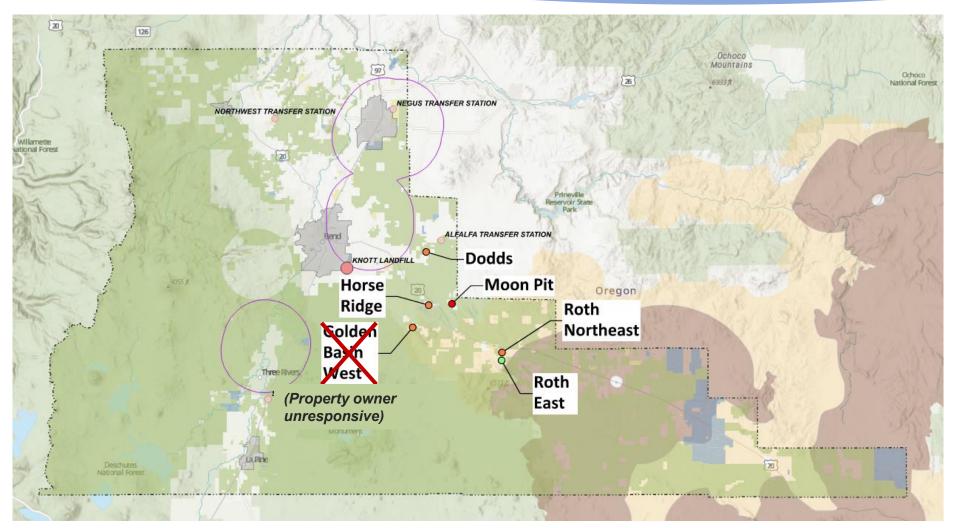




# Supplemental Site Screening Preliminary Results



## **Alternate SWMF Sites**

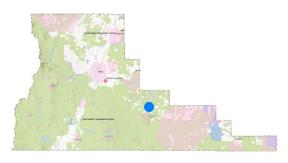


#### **Alternate Site Selection:**

- Sites previously eliminated due to size
- Sites positively affected by Sage Grouse Habitat Map changes
- Sites with apparent changes to property owner willingness to sell



## **Roth East**





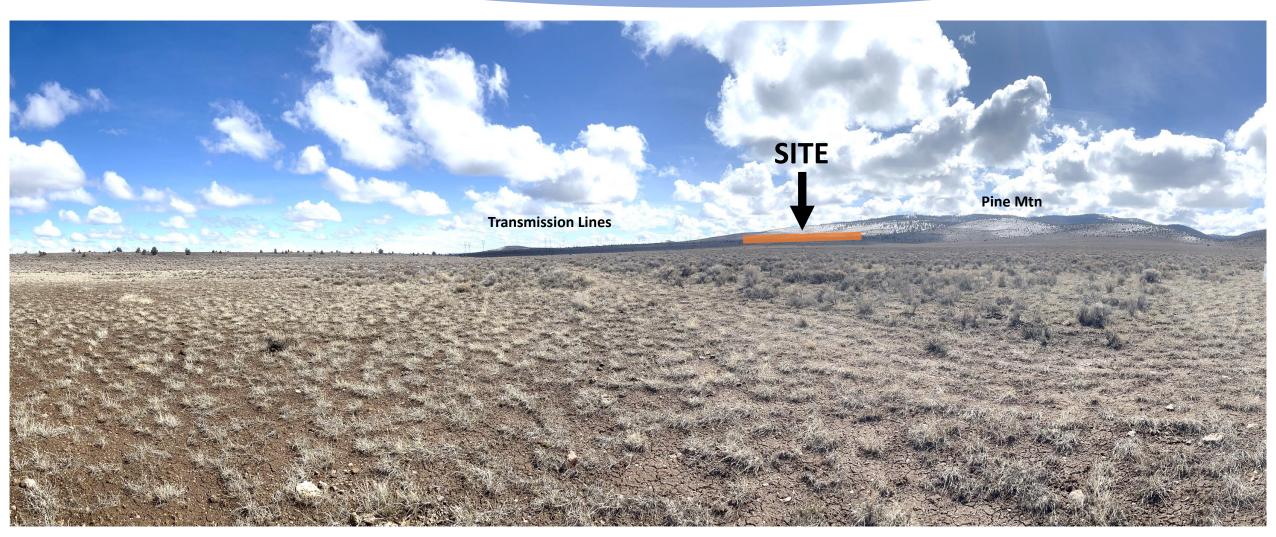


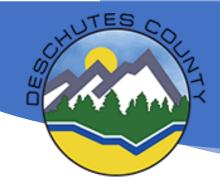
#### **Considerations:**

- Finalist SWMF site evaluated to same level as Moon Pit site. Further study not required for selection.
- Near southeast extent of Millican Valley / Basin
- Within Low Density Sage Grouse Habitat Area
- Core Sage Grouse Zone ~0.5 mile SE from disposal area
- Variety of recreational uses in broad vicinity
- Nearest residence ~0.7 mile distant
- Setback 1 mile from Pine Mountain road and Highway 20, and screened from view by topography
- 23-27 miles from waste centroid
  - All Roth properties recently offered for sale ~3,000 acres.
- Cost-effective to excavate and operate due to ~300 ft depth of alluvial sediment deposit.



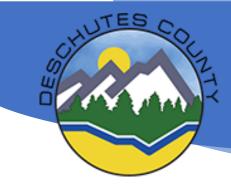
## **Roth East Site Photos**





## **Roth East Scoring**

Criteria and weight	Weight	Wtd. Score:	Focused Site Screening Notes
		3.60	
Site Characteristics/Engineering	<u>35%</u>	<u>3.79</u>	
Site Availability/Acquisition Potential	35%	4.20	
Ownership	40%	3	Private
Number of Parcels	20%	5	Single Owner
Total Site Acreage	40%	5	1706 acres
Geotechnical Location Factors	10%	2.60	
Fault Hazards	25%	3	Fault 1.74 miles south of site (DOGAMI/USGS)
Seismic Impact Zones/Hazards	30%	3	Moderate liquefaction susceptibility (DOGAMI)
Unstable Areas – Mass Movement	25%	3	moderate landslide susceptibility (DOGAMI SLIDO)
Unstable Areas – Poor Foundation	20%	1	no data
Floodplains	5%	3.00	Footprint is not within the 100 year flood plain, but upstream runoff through seasonal drainage channels will need to be managed with perimeter controls
Groundwater Protection/Hydrogeology	20%	3.90	
Depth to Groundwater	25%	3	Depth to water near site appears to be greater than 630 ft. Wells located further (~0.7 to 1.3 miles) to the NE 1st water ranges from 460 ft and 495 ft.
Proximity to Drinking Water Wells	30%	3	Closest wells could be w/in 0.2 miles, but likely ~0.5 miles of work site area. One of these wells is dry. Both wells capped/not used. Closest located well is ~0.7 miles.
Proximity to Wellhead Protection Areas	15%	5	No wellhead protection areas.
Site Hydrogeologic Framework	30%	5	Thick deposits of clay/claystone and rock/clay conglomerate appears to be present above WB zone.
Development	15%	5.00	
Soils	45%	5	Top Soil, Sandstone, Gravel, Clay
Topography	30%	5	Avg Slope = 1 to 10 percent
Capacity/Site Configuration	25%	5	Disposal Footprint = 450+ acres, Total Property area = 1706 acres
Operation	15%	2.55	
Haul Distance to Waste Centroid	60%	2	Slightly longer travel distance than focused sites to the west. 28.6 "weighted" miles from various transfer stations.
Annual Precipitation	15%	4	Between 10" and 15" isohyetal lines
Onsite Water Supply and Management	25%	3	Existing Well onsite (DESC 194). Well and water right expansion/improvement required to support SWMF water needs.



# **Roth East Scoring**

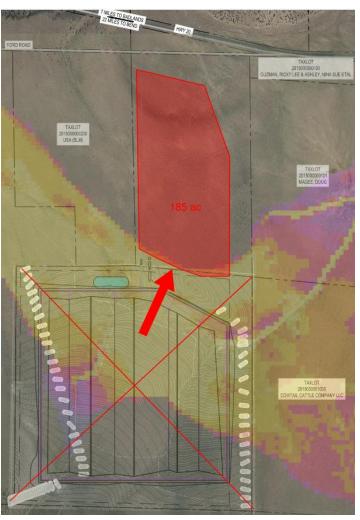
Criteria and weight	Weight	Wtd. Score:	Focused Site Screening Notes
		3.60	
Natural Environments	<u>35%</u>	<u>3.40</u>	
Wetlands and Waters Impacts	10%	5.00	No wetlands identified. Site is 300 feet from an ephermeral stream. Aerial imagery indicates seasonal wash (water).
Threatened and Endangered Species	20%	5.00	No ESA species identified
Wildlife Area Combining Zone	10%	1.00	Within Antelope and North Paulina Deer Winter Range
Greater Sage-Grouse Area Combining Zone	40%	2.00	In low density sage grouse area. Core GSG area 0.56 miles from site. Site development would result in direct and indirect impacts to GSG habitat that can be mitigated for with offsite mitigation, In-lieu fee, or mitigation bank if available.
Sensitive Bird and Mammal Habitat Combining Zone and Migratory Birds	20%	5.00	
Sensitive Bird and Mammal Habitat Combining Zone	50%	5	No SBMH zone within 0.5 mile of site
Migratory Birds, Including Bald and Golden Eagles	50%	5	No migratory bird nest within 2 miles of site
<u>Land Use</u>	<u>30%</u>	<u>3.63</u>	
Proximity to Airports	15%	5.00	greater than 5 miles from airport runways listed in the Deschutes County Transportation System Plan
Site Zoning	20%	5.00	EFUHR, Forest Use 1, Landscape Management Overlay, Wildlife Area Combining Zone Overlay (Deer Winter Range; Antelope Range), Surface Mining Overlay
Adjacent Land Use Impacts	20%	3.50	
Existing Adjacent Use	25%	1	Agricultural, rural residential homes, OHV Recreational Areas/staging areas, hang glider/paraglider landing areas, Pine Mountain Observatory
Planned Adjacent Use	25%	5	Ag, Forest to the south, SM to the north
Distance to Nearest Residence	25%	3	two dwellings on Newt Morris Rd approx. 0.8 miles from disposal footprint
Distance to Nearest Public Road	25%	5	Disposal footprint > 0.25 miles from Cnty Rd 2017, Newt Morris Rd, and Ford Rd
Site Visibility/Aesthetic Impact	10%	2.00	
Visibility Based on Topography and/or Vegetation	50%	1	a portion of disposal footprint is visible from two dwellings on Newt Morris Rd approx. 0.8 miles away
Remoteness	50%	3	dwelling at 56900 Ford Rd is approx. 0.8 miles away from disposal footprint
Transportation System Needs/Opportunity	5%	1.00	Needs and opportunities the same for all focused sites along US20 given shared location along the corridor
Haul Route Impacts	5%	5.00	Less than 5 housing units along expected haul route
On-Site Land Use Impacts	25%	2.70	
Displacement	40%	3	potential active cattle ranching on EFU land.
Known Cultural Resources	30%	2	No known resources; no existing surevy.
Potential for Buried Archaeological Sites	30%	3	Moderate probability for sites based on landform and records for nearby areas.
		•	



## **Roth Northeast**







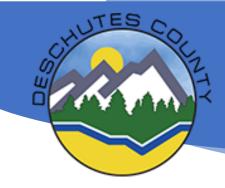
#### **Considerations:**

- Alternate disposal area north of Roth East site on same taxlot, to avoid mapped Sage Grouse Migration route.
- NE site is setback 1 mile from Pine Mountain road and screened by topography from Millican area views
- Visible from Highway 20 to north, setback ¼ mile
- Transmission lines through NE corner of site
- ~197 acre disposal area, estimated to have closer to 80 years of disposal capacity
- 25 miles from waste centroid
- Nearest residence ~0.5 mile distant
- Within Low Density Sage Grouse Habitat Area
- Core Sage Grouse Zone ~0.8 mile SE from disposal area
- Shorter access road needed, compared to Roth East
- All Roth properties recently offered for sale ~3,000 acres.
- Nearby well logs suggest 100'+ depth of sand, gravel, clay, and cobble deposits cost effective excavation and operations anticipated but further investigation needed to confirm.



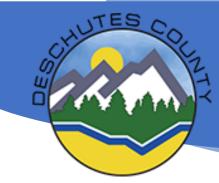
## **Roth Northeast Site Photo**





## **Roth Northeast Scoring**

Criteria and weight	Weight	Wtd. Score:	Focused Site Screening Notes
Citient and neighb	110.8.10	3.49	
Site Characteristics/Engineering	<u>35%</u>	3.52	
Site Availability/Acquisition Potential	35%	4.20	
Ownership	40%	3	Private
Number of Parcels	20%	5	1 taxlot & 1 owner
Total Site Acreage	40%	5	taxlot includes 1706 total acres
Geotechnical Location Factors	10%	2.60	
Fault Hazards	25%	3	Fault located 0.7 mi SE (USGS)
Seismic Impact Zones/Hazards	30%	3	Moderate liquefaction susceptibility
Unstable Areas – Mass Movement	25%	3	Moderate unstable slopes (DOGAMI)
Unstable Areas – Poor Foundation	20%	1	No data
Floodplains	5%	3.00	North end of site within 10 vertical feet and 800 feet along ground from Dry River 100 year SFHA. No mapped 500-year but site could potentially be within that zone if mapped.
Groundwater Protection/Hydrogeology	20%	3.90	
Depth to Groundwater	25%	3	Depth to water near site appears to be greater than 435 ft bgs. Wells located to the south (Roth E) have water greater than of 630 ft bgs. Potentially in the shallow saturated zone in the sedimentary sequence; potential footprint of prehistoric Lake Millican.
Proximity to Drinking Water Wells	30%	3	Closest wells are located just over 0.5 miles east.
Proximity to Wellhead Protection Areas	15%	5	No wellhead protection areas.
Site Hydrogeologic Framework	30%	5	Potentially in the prehistoric Lake Millican footprint. Bedrock underlying alluvial sediment within this footprint may separate a shallow water bearing zone from the deeper regional aquifer
Development	15%	3.65	
Soils	45%	5	Top Soil, Sandstone, Gravel, Clay
Topography	30%	3	E/V ratio good, site has slopes and relief that benefit site capacity, but final grade would still rise prominent above surrounding terrain
Capacity/Site Configuration	25%	2	50M Cy capacity is available inside limited 197 ac footprint, final grade prominent well above surrounding terrain
Operation	15%	2.05	
Haul Distance to Waste Centroid	60%	2	29 "weighted" miles from the various transfer stations
Annual Precipitation	15%	4	10-15 inches annually
Onsite Water Supply and Management	25%	1	1 well on taxlot DESC194 but distance is to far to be of use for this disposal area and no water rights.

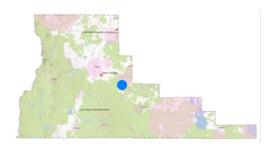


## **Roth Northeast Scoring**

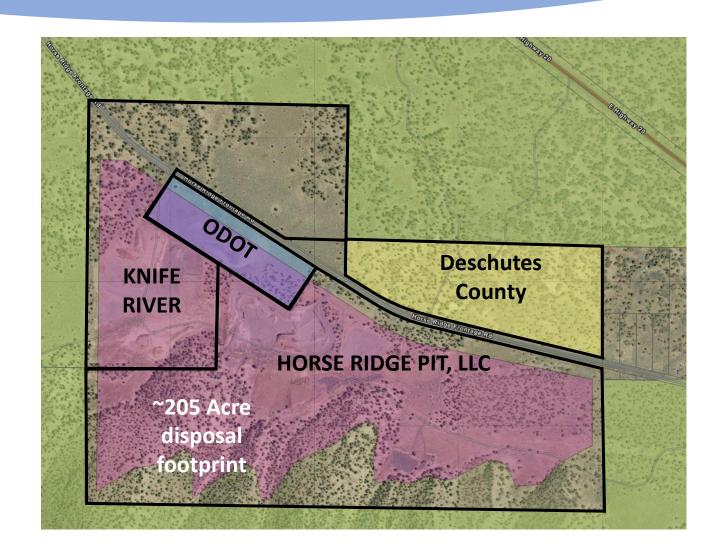
Criteria and weight	Weight		Focused Site Screening Notes
		3.49	
Natural Environments	<u>35%</u>	<u>3.40</u>	
Wetlands and Waters Impacts	10%	5.00	No wetlands or waters identified.
Threatened and Endangered Species	20%	5.00	No ESA species identified
Wildlife Area Combining Zone	10%		Site occurs within Deschutes County Antelope Range Wildlife Area Combining Zone. Site also occurs within ODFW Category 2 Habitat for mule deer and elk winter range and essential and limited pronghorn habitat. Site development would result in direct impacts to ODFW Category 2 habitat which can be mitigated for with offsite mitigation.
Greater Sage-Grouse Area Combining Zone	40%	200	Site occurs within low density GSG habitat and is 1 mile away from Core Habitat. Site development would result in direct and indirect impacts to GSG habitat that can be mitigated for with offsite mitigation, In-lieu fee, or mitigation bank if available.
Sensitive Bird and Mammal Habitat Combining Zone and Migratory Birds	20%	5.00	
Sensitive Bird and Mammal Habitat Combining Zone	50%	5	No SBMH zone within 3 miles of the site.
Migratory Birds, Including Bald and Golden Eagles	50%	5	No migratory bird nest within 2 miles of site
Land Use	<u>30%</u>	<u>3.55</u>	
Proximity to Airports	15%	5.00	greater than 5 miles from airport runways listed in the Deschutes County Transportation System Plan
Site Zoning	20%	5.00	EFU - Horse Ridge Subzone (Farmland of Statewide Importance), Wildlife Area Combining Zone (Antelope Range), Landscape Management Area Zone, Surface Mining Impact Overlay In northern section of property
Adjacent Land Use Impacts	20%	2.50	
Existing Adjacent Use	25%	1	Agricultural, rural residential homes, OHV Recreational Areas/staging areas, hang glider/paraglider landing areas, Pine Mountain Observatory
Planned Adjacent Use	25%	5	Ag, Forest to the south, SM to the north
Distance to Nearest Residence	25%	3	0.55 miles
Distance to Nearest Public Road	25%	1	0.17 miles (Hwy 20); 0.59 miles (Newt Morris Rd/FoxTail Butte Rd)
Site Visibility/Aesthetic Impact	10%	1.00	
Visibility Based on Topography and/or Vegetation	50%	1	Sloping terrain, rolling hills, scattered juniper, sage - some parts more visible than others to Hwy 20. Potentially visible from Pine Mountain. Visible to nearby residence.
Remoteness	50%	1	Nearby residence, close proximity to Hwy 20 (landscape management corridor)
Transportation System Needs/Opportunity	5%	1.00	more transportation system needs than opportunities, needs and opportunities the same for all supplemental sites along US20 given shared location along the corridor
Haul Route Impacts	5%	5.00	less than 5 housing units impacted
On-Site Land Use Impacts	25%	3.60	
Displacement	40%	3	cattle grazing/ranching on EFU land
Known Cultural Resources	30%	5	No known sites; no previous surveys
Potential for Buried Archaeological Sites	30%	3	Undisturbed; Landforms is located in close proximity to natural water sources suggest moderate overall probability for archaeological resources



## Horse Ridge

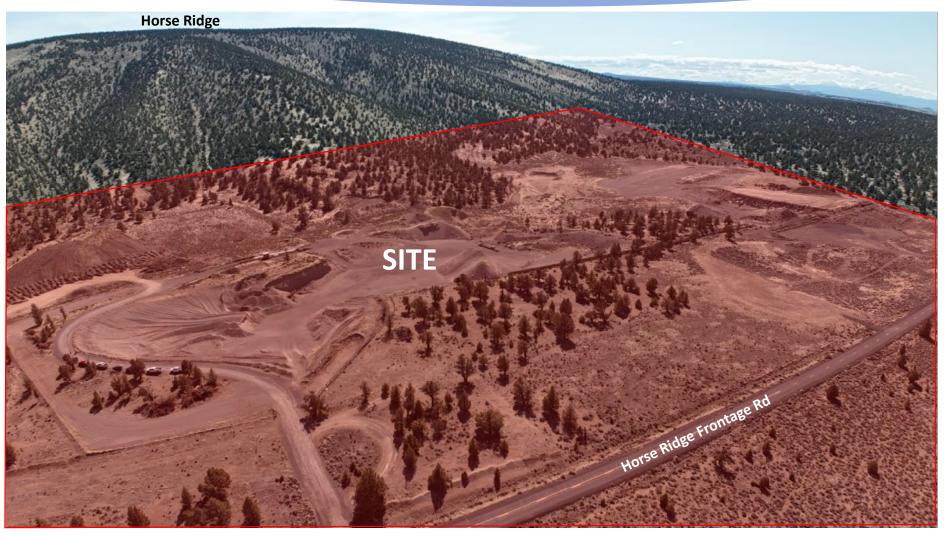








## **Horse Ridge Site Photo**





## Horse Ridge Key Findings

- Ownership & Parcel Configuration: Approximately 391 acres across three properties owned by Deschutes County, ODOT, Knife River Corp., and 4-R Equipment. 3 property acquisitions would be required.
- Site Capacity: Estimated 100 million cubic yards of disposal capacity available using ~300 acres with road realignment; excellent hillside configuration supports high-capacity design.
- Soils & Geology: Central band of sand and gravel (up to 30' deep) underlain by basalt. Soils rated excellent for landfill use. Existing permitted surface mines have already partially excavated portions of the site.
- **Groundwater Protection:** Very deep groundwater (~850–950 ft bgs); confined aquifer system with no wellhead protection areas nearby.
- Water Supply: Two existing wells onsite with potential for up to 10,000 gpd under exempt use. No existing water rights; however, one site owner holds nearby water rights.
- Haul & Access: ~18 weighted miles from transfer stations (moderate). Accessible from Hwy 20 via Horse Ridge Frontage Rd; <5 residences affected along haul route.



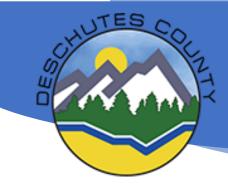
## Horse Ridge Key Findings

#### Environmental Considerations:

- No wetlands or ESA species identified.
- Within North Paulina Deer Winter Range and ODFW Category 2 winter habitat; impacts mitigable.
- ~1 mile from Low-Density Sage-Grouse habitat; indirect impacts mitigable.
- Golden Eagle nest ~1.5–2 mi SW; may require Eagle Incidental Take Permit, mitigable.

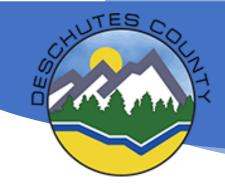
#### Land Use & Visibility:

- Zoned SM and EFU with overlays for wildlife and surface mining.
- Adjacent to recreation (Horse Ridge mountain bike trails) and the Badlands Wilderness (~0.65 mi).
- Nearest home ~0.36 mi NW. Site visible from Horse Ridge Frontage Rd and limited portions of Hwy 20; low remoteness score due to nearby trailheads and homes.
- **Cultural Resources:** Prior partial survey found no significant resources; projectile point, lithic scatter, and can dumps recorded in 1996; low potential for buried sites due to terrain and disturbance.
- Utilities & Infrastructure: No existing power onsite; ~7-mile 3-phase line extension needed from Dodds Road.



# **Horse Ridge Scoring**

Criteria and weight	Weight	Wtd. Score:	Focused Site Screening Notes			
Site Characteristics/Engineering	35%	3.60 3.70				
Site Availability/Acquisition Potential	35%	3.40				
Ownership	40%	4	County, State & Private Ownership. 4 separate owners: Deschutes County, ODOT, Knife River Corporation, 4-R Equipment			
Number of Parcels	20%	3	3 separate owners: ODOT, Knife River Corporation, 4-R Equipment			
Total Site Acreage	40%	3	res total, including County-owned parcel north of Horse Ridge Frontage Rd			
Geotechnical Location Factors	10%	2.60				
Fault Hazards	25%	3	1 mi SW of site boundary			
Seismic Impact Zones/Hazards	30%	3	derate liquefaction susceptibility			
Unstable Areas – Mass Movement	25%	3	noderate landslide risk per mapping and subsurface rock			
Unstable Areas – Poor Foundation	20%	1	No data			
Floodplains	5%	3.00	Nearest mapped floodplain is over a 1-mile east of site; Site is at the base of large slope with 6 unnamed ephemeral streams to manage			
Groundwater Protection/Hydrogeology	20%	4.40				
Depth to Groundwater	25%	5	DESC 5751 is located on site. Reported SWL of 950' bgs in 1988. Current SWL at nearby Moon Pit well (DESC 5750) of 850' bgs.			
Proximity to Drinking Water Wells	30%	3	DESC 5751 (ODOT owned; industrial use); either onsite or immediately adjacent. Domestic wells DESC 61999 & DESC 63009 are located ~0.55 & 0.75 miles NW of site, respectively.			
Proximity to Wellhead Protection Areas	15%	5	No wellhead protection areas.			
Site Hydrogeologic Framework	30%	5	Confined aquifer, based on DESC 5751. Material is interbeds of hard lava, fractured lava, and cinders.			
Development	15%	5.00				
Soils	45%	5	Sand, Gravel and Basalt			
Topography	30%	5	Avg Slope = 2 to 15 percent, Excellent E/V ratio with hillside			
Capacity/Site Configuration	25%	5	up to 100M cy available using full 300 acres with road re-alignment, existing mining excavation, hillside landfill			
Operation	15%	3.15				
Haul Distance to Waste Centroid	60%	3	18 "weighted" miles from the various transfer stations			
Annual Precipitation	15%	4	10-15 inches annual precipitation average			
Onsite Water Supply and Management	25%	3	2 existing wells onsite, up to 10,000 gpd exempt. No water rights onsite, but one of the site owners also holds water rights nearby. Potential for more exempt wells on included taxlots.			



# **Horse Ridge Scoring**

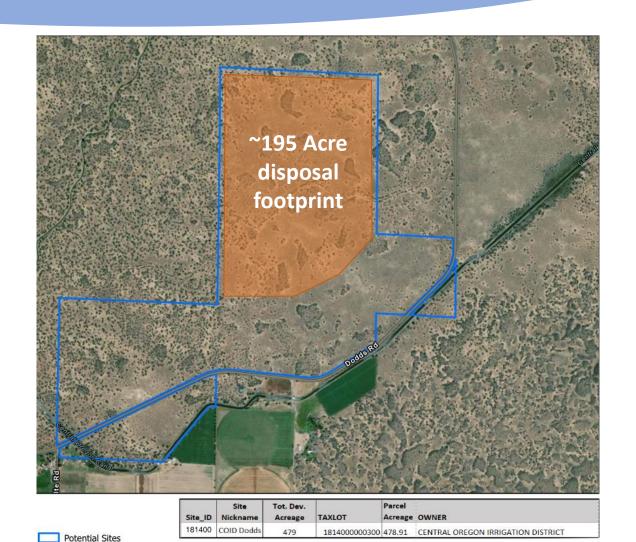
Criteria and weight	Weight	Wtd. Score:	Focused Site Screening Notes
		3.49	
Natural Environments	<u>35%</u>	3.50	
Wetlands and Waters Impacts	10%	5.00	No wetlands or waters identified.
Threatened and Endangered Species	20%	5.00	No ESA species identified
Wildlife Area Combining Zone	10%		Site occurs within Deschutes County North Paulina Deer Winter Range Wildlife Area Combining Zone. Site also occurs within ODFW Category 2 Habitat for mule deer and elk winter range and essential and limited pronghorn habitat. Site development would result in direct impacts to ODFW Category 2 habitat which can be mitigated for with offsite mitigation.
Greater Sage-Grouse Area Combining Zone	40%	1 300	Low Density GSG area occurs 1 mile SW of the site. Site development would result in indirect impacts to GSG low density habitat that can be mitigated for with offsite mitigation, In-lieu fee, or mitigation bank if available.
Sensitive Bird and Mammal Habitat Combining Zone and Migratory Birds	20%	3.50	
Sensitive Bird and Mammal Habitat Combining Zone	50%	4	Nearest SBMH zone is approximately 2.5 miles SW of site
Migratory Birds, Including Bald and Golden Eagles	50%	3	Nearest mapped Golden Eagle nest is 1-2 miles SW of site, with Horse Ridge between. Site development would result in a permanent alteration of habitat and would require submission of an Eagle Incidential Take Permit. Impacts can be mitigated for.
<u>Land Use</u>	<u>30%</u>	<u>3.60</u>	
Proximity to Airports	15%	5.00	approx 11.5 mi to Bend airport runway
Site Zoning	20%	3.00	Mostly SM, with some EFU (Farmland of statewide importance and prime farmland if irrigated), wildlife area combining zone (North Paulina Deer Winter Range), Surface Mining Impact Area Overlay
Adjacent Land Use Impacts	20%	3.50	
Existing Adjacent Use	25%	3	agricultural, recreation - Horse Ridge Mountain Biking Trails adjacent to site; Badlands Wildnerness (trailhead with horse/hiking/walking trails about 0.65 miles away), Surface Mining
Planned Adjacent Use	25%	3	agricultural, undeveloped, Badlands Wilderness (Recreation), Horse Ridge Mountain Biking Trails, Surface Mining
Distance to Nearest Residence	25%	3	nearest residence approximately 0.36 mi NW of site
Distance to Nearest Public Road	25%	5	0.42 miles to Hwy 20, Horse Ridge Frontage road serves as the access road to the site and is exempt from 0.25 mile setback
Site Visibility/Aesthetic Impact	10%	1.00	
Visibility Based on Topography and/or Vegetation	50%	1	site visible from Horse Ridge Frontage and Highway 20 (in select locations)
Remoteness	50%	1	residences and trailheads w/ parking <0.5 mi from site
Transportation System Needs/Opportunity	5%	1.00	more transportation system needs than opportunities, needs and opportunities the same for all supplemental sites along US20 given shared location along the corridor
Haul Route Impacts	5%	5.00	Less than 5 housing units impacted
On-Site Land Use Impacts	25%	4.60	
Displacement	40%		3 active & permitted surface mines with separate owners (ODOT, Knife River Corp, 4-R Equipment)
Known Cultural Resources	30%		Partial prior survey, isolates found, no recorded cultural resource sites
Potential for Buried Archaeological Sites	30%	5	25% existing disturbance; Landforms and lack of natural water sources suggest low overall probability for archaeological resources

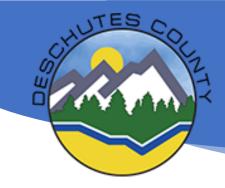


## **Dodds Road Site**



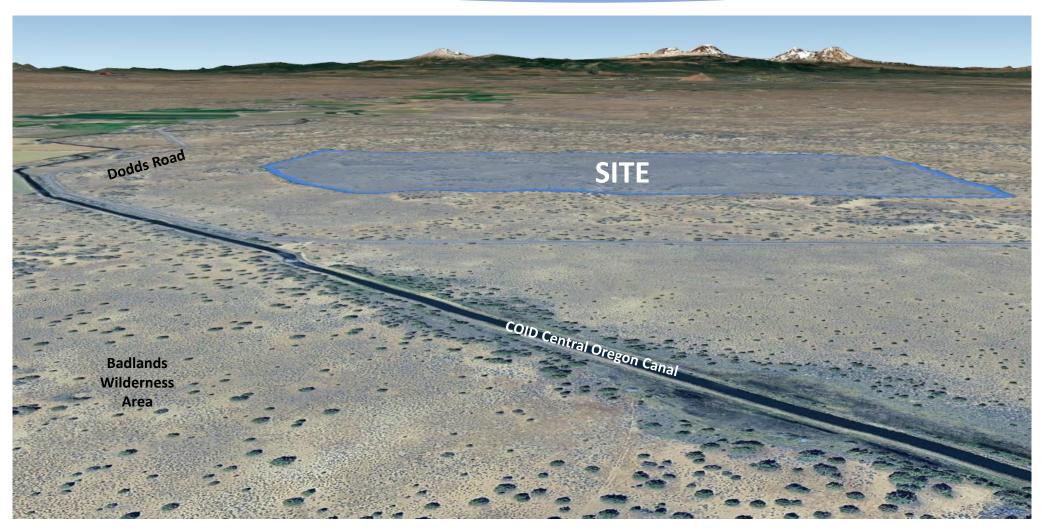






## **Dodds Site Isometric View**

(Google Earth, looking West)





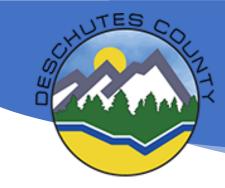
## **Dodds Site Key Findings**

- Ownership & Size: 433-acre parcel owned by Central Oregon Irrigation District (COID); responsive regarding acquisition potential.
- Capacity & Terrain: Estimated ~80-year landfill capacity; undulating terrain with shallow basalt limits excavation and results in poor E/V ratio.
- Soils & Geology: Sandy loam over shallow basalt; exposed rock and poor soil depth limit onsite cover and liner material suitability.
- **Groundwater Protection:** Deep groundwater (621–713 ft bgs); confined aquifer with no nearby wellhead protection zones.
- Water & Power: No onsite wells or water rights; 3-phase power available near SW corner at Dodds & Obernolte.



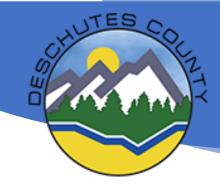
## Dodds Site Key Findings

- Haul & Access: ~18 weighted miles from waste centroid; accessed via Dodds Rd and Hwy 20. Greater than 21 homes impacted along haul route.
- Surrounding Land Use: Bordered by farmland, ranches, and Badlands Wilderness Area (~0.23 mi east). 3 residences within 0.5 miles; ~60 within 2 miles.
- Visibility & Aesthetics: Landfill prominence (150-200') required for 100-yr capacity and nearby homes result in low remoteness and high visibility impacts.
- Environmental Considerations: No wetlands or ESA species present. Site not in sage-grouse or SBMH zones. Not within County-mapped wildlife zones, but within ODFW Category 2 mule deer/elk habitat, but likely not subject to mitigation.
- Zoning: Zoned EFU-Alfalfa (non-high-value farmland); vacant site, no use displacement.
- Cultural: One historic abandoned canal crosses site; low archaeological potential based on landforms and geology.



## **Dodds Site Scoring**

Criteria and weight	Weight	Wtd. Score:	Focused Site Screening Notes
		3.81	
Site Characteristics/Engineering	<u>35%</u>	<u>3.35</u>	
Site Availability/Acquisition Potential	35%	3.80	
Ownership	40%	4	Central Oregon Irrigation District
Number of Parcels	20%	5	1 parcel & owner
Total Site Acreage	40%	3	433 acres
Geotechnical Location Factors	10%	4.20	
Fault Hazards	25%	5	No nearby faults within USGS Fault and Fold database
Seismic Impact Zones/Hazards	30%	5	No liquefaction susceptibility
Unstable Areas – Mass Movement	25%	5	No slope hazard - located in lava field
Unstable Areas – Poor Foundation	20%	1	Lava tubes within unit elsewhere
Floodplains	5%	5.00	A small abandoned canal bisects site and central OR Canal nearby. Nearest mapped SFHA is Dry Creek ~3 miles east.
Groundwater Protection/Hydrogeology	20%	3.80	
Depth to Groundwater	25%	5	Ranges from 621 ft bgs in wells located NE of site to 713 ft bg SW of site.
Proximity to Drinking Water Wells	30%	1	Multiple domestic wells located between approx 0.25 and 1 mile, located to the NE, SE, and SW. Exact locations not verified, except for addresses listed on borelog.
Proximity to Wellhead Protection Areas	15%	5	No wellhead protection areas.
Site Hydrogeologic Framework	30%	5	Confined aquifer, based on nearby domestic wells: DESC 52510, DESC 52982, DESC 55360, DESC 57898, DESC 52145, DESC 55168. Material is hard lava, broken lava, and sandstone.
Development	15%	1.25	
Soils	45%	1	up to 10' overburden soils (sandy loam) in low areas over basalt rock bedrock, per well logs and exposed rock features
Topography	30%	1	poor E:V ratio, average slope under 5% with undulating terrain from rock features, final grade prominent well above surrounding terrain
Capacity/Site Configuration	25%	2	50M Cy capacity available, but would require over 50' excavation depth and final grade prominent well above surrounding terrain (up to 200 ft)
Operation	15%	2.65	
Haul Distance to Waste Centroid	60%	3	18 "weighted" miles from the various transfer stations
Annual Precipitation	15%	4	10-15 inches annually
Onsite Water Supply and Management	25%	1	no well onsite, property owned by irrigation district
		•	



# **Dodds Site Scoring**

Criteria and weight	Weight	Wtd.	Focused Site Screening Notes
		Score:	
		3.81	
Natural Environments	<u>35%</u>	<u>4.70</u>	
Wetlands and Waters Impacts	10%	5.00	No wetlands or waters identified.
Threatened and Endangered Species	20%	5.00	No ESA species identified
Wildlife Area Combining Zone	10%	2.00	Site does not occur within a Deschutes County Wildlife Area Combining Zone. The site does occurs within ODFW Category 2 Habitat for mule deer and elk winter range. However, because the site is not within a Wildlife Area Combining Zone, site development may not require mitigation for impacts to ODFW Category 2 Habitat as ODFW may not have a nexus to comment or enforce their mitigation policy during permitting with the county. This was scored a 2 to reflect impacts would occur to ODFW Category 2 habitat but they may not need to be mitigated for.
Greater Sage-Grouse Area Combining Zone	40%	5.00	GSG habitat occurs over 8 miles SE of the site. Site development would not cause any indirect impacts to GSG habitat
Sensitive Bird and Mammal Habitat Combining Zone and Migratory Birds	20%	5.00	
Sensitive Bird and Mammal Habitat Combining Zone	50%	5	No SBMH zone within 3 miles of the site.
Migratory Birds, Including Bald and Golden Eagles	50%	5	No migratory bird nest within 2 miles of site
<u>Land Use</u>	<u>30%</u>	<u>3.33</u>	
Proximity to Airports	15%	5.00	greater than 5 miles from airport runways listed in the Deschutes County Transportation System Plan
Site Zoning	20%	5.00	EFU Alfalfa (Prime Farmland if Irrigated and Not Prime Farmland, not irrigated so non-high value farmland)
Adjacent Land Use Impacts	20%	1.00	
Existing Adjacent Use	25%	1	Residential, Wilderness (Badlands - boundary about 0.23 miles from site, trails ~1 mile distant), agricultural, irrigation (canal), undeveloped
Planned Adjacent Use	25%	1	Residence, Agricultural, Wilderness (recreational - horse/ bike/ walking trails)
Distance to Nearest Residence	25%	1	0.25 miles to the south - additional residences are 0.38 miles (to the south); 0.41 miles (to northeast)
Distance to Nearest Public Road	25%	1	Dodds Road is 0.18 miles south of disposal area, will serve as the access road to the site, but continues to the north within 0.25 miles of disposal area.
Site Visibility/Aesthetic Impact	10%	1.00	
Visibility Based on Topography and/or Vegetation	50%	1	Residence within 0.25 miles to south. Juniper, sage, sloping/rolling terrain from Dodds Road, may be visible from north side residences?
Remoteness	50%	1	Nearby residences, closest within 0.25 miles
Transportation System Needs/Opportunity	5%	1.00	more transportation system needs than opportunities, needs and opportunities the same for all supplmental sites along US20 given shared location along the corridor
Haul Route Impacts	5%	1.00	Greater than 21 housing units directly adjacent to and accessing the haul route between the site and an existing designated state route or county arterial
On-Site Land Use Impacts	25%	4.70	
Displacement	40%	5	Vacant land, no displacement of use
Known Cultural Resources	30%	4	One historic built resource present - Central Oregon Canal, not previously surveyed
Potential for Buried Archaeological Sites	30%	5	Landforms and lack of natural water sources suggest low overall probability for archaeological resources; Geology: Quaternary; No resources on GLO
		<u></u>	



SIT	ΓΕ NAME:	MOON PIT	HORSE RIDGE	DODDS	ROTH NORTHEAST	ROTH EAST
Criteria and weight	Weight	Score:	Score:	Score:	Score:	Score:
Site Characteristics/Engineering	<u>35%</u>	3.90	3.70	3.35	3.52	3.79
Site Availability/Acquisition Potential	35%	3.40	3.40	3.80	4.20	4.20
Ownership	40%	3	4	4	3	3
Number of Parcels	20%	5	3	5	5	5
Total Site Acreage	40%	3	3	3	5	5
Geotechnical Location Factors	10%	2.60	2.60	4.20	2.60	2.60
Fault Hazards	25%	3	3	5	3	3
Seismic Impact Zones/Hazards	30%	3	3	5	3	3
Unstable Areas – Mass Movement	25%	3	3	5	3	3
Unstable Areas – Poor Foundation	20%	1	1	1	1	1
Floodplains	5%	3.00	3.00	5.00	3.00	3.00
Groundwater Protection/Hydrogeology	20%	5.00	4.40	3.80	3.90	3.90
Depth to Groundwater	25%	5	5	5	3	3
Proximity to Drinking Water Wells	30%	5	3	1	3	3
Proximity to Wellhead Protection Areas	15%	5	5	5	5	5
Site Hydrogeologic Framework	30%	5	5	5	5	5
Development	15%	5.00	5.00	1.25		5.00
Soils	45%	5	5	1	5	5
Topography	30%	5	5	1	3	5
Capacity/Site Configuration	25%	5	5	2	2	5
Operation	15%	3.65	3.15	2.65		2.55
Haul Distance to Waste Centroid	60%	3	3	3	2	2
Annual Precipitation	15%	4	4	4	4	4
Onsite Water Supply and Management	25%	5	3	1	1	3



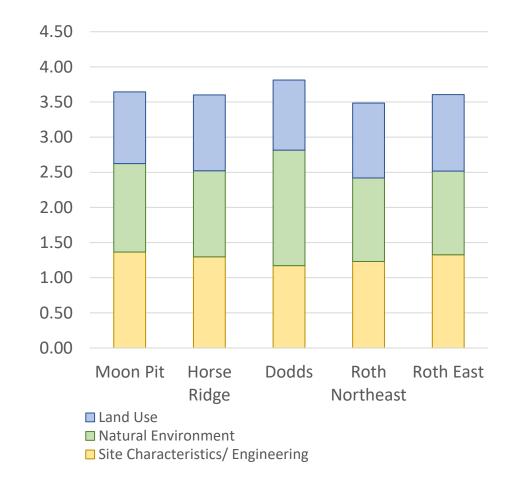
SIT	E NAME:	MOON PIT	HORSE RIDGE	DODDS	ROTH NORTHEAST	ROTH EAST
Criteria and weight	Weight	Score:	Score:	Score:	Score:	Score:
Natural Environments	<u>35%</u>	<u>3.60</u>	<u>3.50</u>	<u>4.70</u>	3.40	<u>3.40</u>
Wetlands and Waters Impacts	10%	5	5	5	5	5
Threatened and Endangered Species	20%	5	5	5	5	5
Wildlife Area Combining Zone	10%	1	1	2	1	1
Greater Sage-Grouse Area Combining Zone	40%	3	3	5	2	2
Sensitive Bird and Mammal Habitat Combining Zone and Migratory Birds	20%	4.00	3.50	5.00	5.00	5.00
Sensitive Bird and Mammal Habitat Combining Zone	50%	5	4	5	5	5
Migratory Birds, Including Bald and Golden Eagles	50%	3	3	5	5	5



	SITE NAME:	MOON PIT	HORSE RIDGE	DODDS	ROTH NORTHEAST	ROTH EAST
Criteria and weight	Weight	Score:	Score:	Score:	Score:	Score:
Land Use	30%	<u>3.40</u>	3.60	3.33	<u>3.55</u>	3.63
Proximity to Airports	15%	5.00	5.00	5.00	5.00	5.00
Site Zoning	20%	3.00	3.00	5.00	5.00	5.00
Adjacent Land Use Impacts	20%	3.00	3.50	1.00	2.50	3.50
Existing Adjacent Use	25%	1	3	1	1	1
Planned Adjacent Use	25%	1	3	1	5	5
Distance to Nearest Residence	25%	5	3	1	3	3
Distance to Nearest Public Road	25%	5	5	1	1	5
Site Visibility/Aesthetic Impact	10%	3.00	1.00	1.00	1.00	2.00
Visibility Based on Topography and/or Vegetation	50%	3	1	1	1	1
Remoteness	50%	3	1	1	1	3
Transportation System Needs/Opportunity	5%	1.00	1.00	1.00	1.00	1.00
Haul Route Impacts	5%	5.00	5.00	1.00	5.00	5.00
On-Site Land Use Impacts	25%	3.40	4.60	4.70	3.60	2.70
Displacement	40%	4	4	5	3	3
Known Cultural Resources	30%	1	5	4	5	2
Potential for Buried Archaeological Sites	30%	5	5	5	3	3



Site ID	Site Name	Site Characteristics/ Engineering 35%	Natural Environment 35%	Land Use	Total Site Score:
191400-200	Moon Pit	3.90	3.60	3.40	3.64
191400-2400	Horse Ridge	3.70	3.50	3.60	3.60
181400	Dodds	3.35	4.70	3.33	3.81
201500-301	Roth Northeast	3.52	3.40	3.55	3.49
201500-301	Roth East	3.79	3.40	3.63	3.60





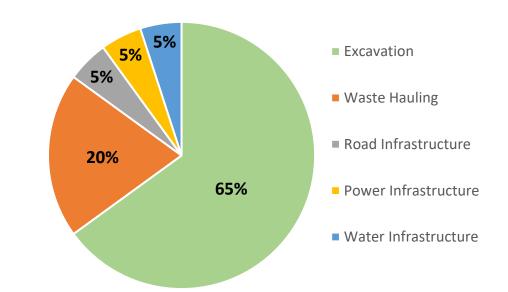
### **Comparative Cost Factor Analysis**

Five major cost factors were identified, which influence the costs to develop and operate a solid waste management facility.

These cost factors include (with estimated weighting):

- Waste hauling (20%)
- Road infrastructure (5%)
- Power infrastructure (5%)
- Water infrastructure (5%)

### **Cost Factor Weighting**





## **Comparative Cost Factor Analysis**

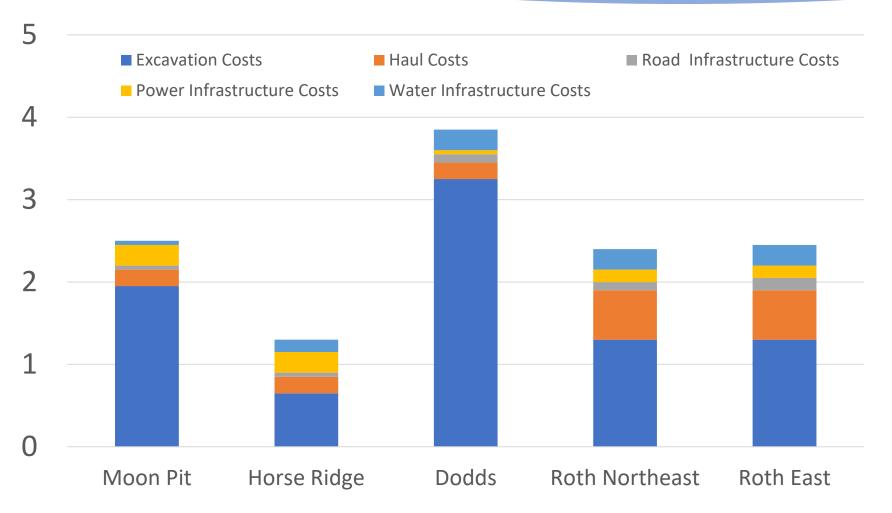
Cost Factor Weighting:	65%	20%	5%	5%	5%	
Site Name	Excavation Costs	Haul Costs	Road Infrastructure Costs	Power Infrastructure Costs	Water Infrastructure Costs	Weighted Average
Moon Pit	3	1	1	5	1	2.50
Horse Ridge	1	1	1	5	3	1.30
Dodds	5	1	2	1	5	3.85
Roth Northeast	2	3	2	3	5	2.40
Roth East	2	3	3	3	5	2.45

Each site was given a score of 1 to 5 with respect to each cost factor, where 5 represents the *highest* cost and 1 represents the *lowest* cost.

As a result, the sites with higher weighted total scores are anticipated to be relatively less expensive to develop and operate, while the sites with lower weighted total scores are anticipated to be relatively more expensive to develop and operate.



## **Comparative Cost Factor Analysis**



Based on this cost factor analysis, it is estimated that SWMF development and operational costs could likely be the **lowest for the Horse** Ridge site and highest for the **Dodds site.** The SWMF development and operational costs related to the Roth sites are expected to fall between these two extremes, being more expensive than the Horse Ridge site and less expensive than the Dodds sites.





### **Horse Ridge Site**

- 3 dwellings within 1 mile
- 3 dwellings within 2 miles

**Known Residences** 

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Supplemental Potential Site Area (for Editing/Revising)



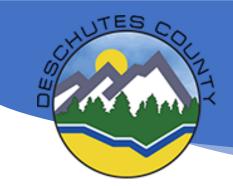
Supplemental Site Buffers (1 Mile & 2 Mile)

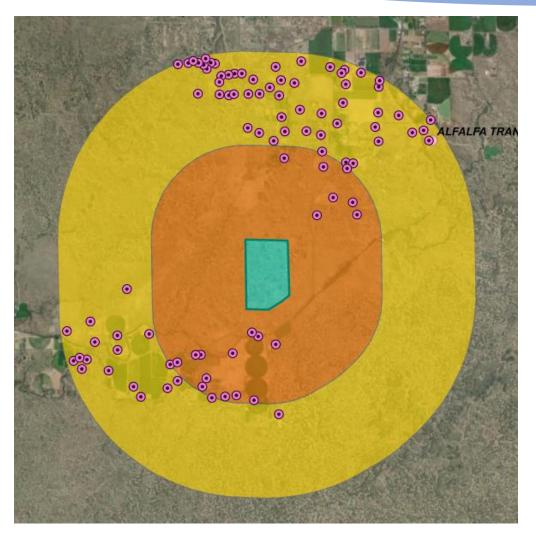
distance



1







### **Dodds Site**

- 18 dwellings within 1 mile
- 86 dwellings within 2 miles

Known Residences

Supplemental Potential Site Area (for Editing/Revising)



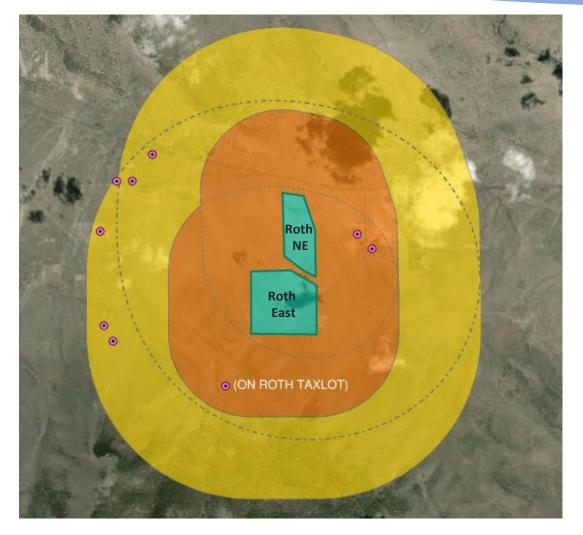
Supplemental Site Buffers (1 Mile & 2 Mile)

distance









### **Roth Northeast Site**

- 2 dwellings within 1 mile
- 4 dwellings within 2 miles

### **Roth East Site**

- 2 dwellings within 1 mile
- 8 dwellings within 2 miles

Known Residences

Supplemental Potential Site Area (for Editing/Revising)

Supplemental Site Buffers (1 Mile & 2 Mile)

distance

#### Notes:

Residences were identified based on structures listed on the property improvement report per County records.

Unpermitted structures and RVs were not included in estimated dwelling counts in proximity to proposed sites.

The dwelling on the Roth site taxlot was not counted as an adjacent residence.



Site ID	Site Name	Known Residences within 1 Mile	Known Residences within 2 Miles
191400-200	Moon Pit	0	1
191400-2400	Horse Ridge	3	3
181400	Dodds	18	86
201500-301	Roth Northeast	2	4
201500-301	Roth East	2	8



## **SWAC Discussion**



### **SWAC Discussion**

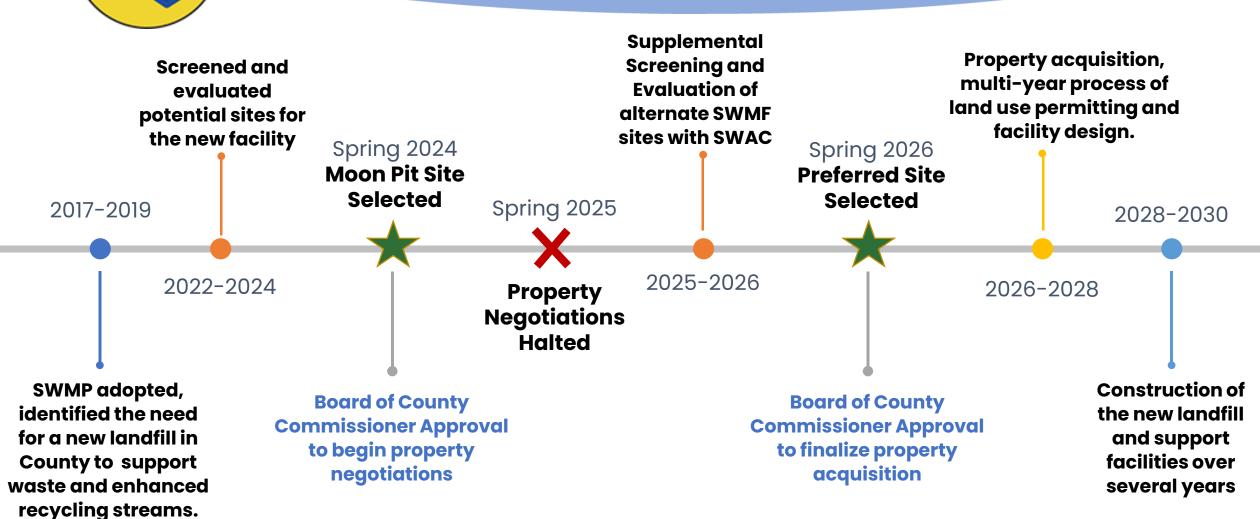
- 1. Do the analyses appear to be accurate and fair, for the purposes of comparing candidate sites?
- 2. At this point, what site(s) do you think would best serve the County long-term, based on the presented analyses?
- 3. Are there any sites you would recommend removing from further consideration?
- 4. Are there any additional data or considerations to incorporate?
- 5. Other thoughts/questions?



# **Next Steps**



## Roadmap to Opening in 2031





## What happens next...

# Continuation of SWAC Meetings in 2025 for supplemental site screening and recommendation of alternate SWMF site:

- July 15, 2025, 9-11 am: updated & additional site screening information
- August 19, 2025, 9-11 am: recommendation for final site evaluation or selection

### **Public Input:**

- Public comment reviews & responses
- Correspondence & meetings with interested parties

### Ways to stay up to date:

- Visit: deschutes.org/managethefuture
- Email: managethefuture@deschutescounty.gov



Deschutes
County:
Managing
the Future of
Solid Waste

Informational Story Map

Deschutes County Department of Solid Waste | August 202

